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Department of the Interior
Utilization Guide for Calculating DOI Constructed Assets

This guidance is intended to provide assistance to asset managers throughout the Department of the Interior (DOI) in determining the utilization value of assets to be captured in the Federal Real Property Profile (FRPP) in FY 2006. This guidance covers four predominant use categories of constructed assets:[1]

- Offices
- Warehouses
- Housing
- Laboratories

With the requirement to report utilization in Q1 '06, this guidance was a result of the immediate need by bureaus for assistance in interpreting the general Federal Real Property Council (FRPC) guidance. The bureaus are currently gathering data for entry into the FRPP.

Variations in bureau reporting are expected for FY '06 that will severely impact the comparability of data. The situation will improve in FY '07. This guidance is the first step toward standardizing the methodology for determining and calculating utilization variables, i.e., occupancy rates and design capacity. DOI will re-evaluate and refine the utilization standard in preparation for FRPP reporting in FY 2007.

Utilization is an FRPC performance metric to be reported in the FRPP for the four above noted categories of constructed assets. According to the *Real Property Inventory Interim User Guidance for FY 2005 Reporting as of July 15, 2005 (Interim User Guidance),* "utilization" is defined as the state of having been made use of, i.e., the rate of utilization.

The FRPC defines the rate of utilization for the four categories as follows:

- Offices – ratio of occupancy to current design capacity.
- Warehouses – ratio of gross square feet occupied to current design capacity.
- Housing – percent of individual units that are occupied.
- Laboratories – ratio of active units to current design capacity.

[1] Hospitals are a fifth category of constructed assets for which utilization is to be reported. DOI does not have hospitals in its inventory,

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Current design capacity is defined as the maximum capacity for which an asset, facility or system can operate.[2]

Asset managers will capture and maintain utilization for the four types of constructed assets as a percent of utilization on a scale of 0% to 100%. For purposes of reporting utilization into the FRPP, the following utilization category code will be used:

(1) Over Utilized
(2) Utilized
(3) Under Utilized
(4) Not Utilized

The following categories and percent of utilization as denoted in the following table will be used to determine the rate of utilization. DOI, along with other Federal agencies, have the flexibility in determining current design capacity.

Utilization Categories and Codes for Reporting	Offices (10)	Warehouses (40)	Laboratories (74)	Housing (30, 31)
1 - Over Utilized	>95%	>85%	>85%	N/A
2 - Utilized	75-95%	50-85%	60-85%	85-100%
3 - Under Utilized	<75%	10-50%	30-60%	<85%
4 - Not Utilized	N/A	<10%	<30%	N/A

The following guidance for each of the four predominate use categories of constructed assets is to assist managers to measure the percentage of use.

[2] The FRPC allows Federal agencies to use their best judgment for determining current design capacity and utilization of laboratories when the data is not available to calculate utilization in accordance with the definition stated above.

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Office Utilization

The *Interim User Guidance* provides the following formula for calculating utilization for office buildings (as well as warehouses) that is recommended for FY 2006 reporting:

Occupancy ÷ Design Capacity x 100 = Utilization Rate (percent)

For example, an owned office building has 25,000 gross square feet (GSF) of design capacity but only 15,000 square feet (SQ) are occupied (occupancy). 15,000sf / 25,000sf x 100 = 60% utilization rate. Based on the table above, a utilization rate for office space of 60% would be reported in the FRPP as a u*tilization* value of 3 (Under Utilized). DOI asset managers may use this approach to calculate utilization of office space.

Another acceptable but more resource intensive approach requires an annual review of office space as part of the Annual Condition Assessment and/or from As-Built drawings. The formula for this approach is as follows:

Number of Occupants x an Industry or Government Standard for SF per Occupant = Actual Occupied Office Area (SF)

Gross Area (SF) - Common Area (SF) = Net Usable Office Area (SF)

Actual Occupied Office Area (SF) ÷ Net Usable Office Area (SF) x 100 = Utilization Rate (percent)

Definitions for this approach are:

- Common Area –- Dependent on the standard used, may include mechanical, Electrical, Toilet, Custodial, Storage, Equipment, Trash Rooms, Laboratories, Libraries, Elevators, Stairwells, Exterior Circulation Areas or Hallways, Warehouse Space and such.

- Occupant – Full-Time Employees, Volunteers, Contractors, Seasonal Employees.

- Industry or Government Standard Per Occupant – Industry associations such as the Building Owners and Managers Association (BOMA), the International Facility Management Association (IFMA), the Association of Higher Education Facilities Officers (APPA), and government organizations such as the Department of Defense and the Department of State have developed standards to guide determining the appropriate utilization rate per office

occupant. In developing these standards, size of building, how the space is used, and other factors are taken into account.

Warehouse Space Utilization

The *Interim User Guidance* provides the following formula for calculating utilization for warehouses (as well as office space) that is recommended for FY 2006 reporting:

Occupancy ÷ Design Capacity x 100 = Utilization Rate (percent)

For example, a warehouse has 25,000 GSF (design capacity) and 20,000 square feet are occupied (occupancy). 20,000sf / 25,000sf x 100 = 80% utilization rate. Based on the table on Page 2, a utilization rate for warehouse space of 80% would be reported in the FRPP as a *Utilization* value of 2 (Utilized). DOI asset managers may use this approach to calculate utilization of warehouse space.

Another acceptable but more resource intensive approach requires an annual review of warehouse space as part of the Annual Condition Assessment and/or from As-Built drawings. The formula for this approach is as follows:

Actual Occupied Warehouse Area (SF) = Horizontal Warehouse Area in Use (SF)

Gross Area (SF) - Common Area (SF) = Net Usable Warehouse Area (SF)

Actual Occupied Warehouse Area (SF) ÷ Net Usable Warehouse Area (SF) x 100 = Utilization Rate (percent)

Definitions for this approach are:

- Common Area = Mechanical, Electrical, Toilet, Custodial, Storage, Equipment, Trash Rooms, Laboratories, Libraries, Elevators, Stairwells, Exterior Circulation Areas or Hallways, Individual Work Areas, Interior Circulation Areas (i.e. Modular Furniture), Copy Rooms, Break Rooms and Conference Rooms.

- Horizontal Warehouse Area in use = The amount of floor area used for storage.

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Housing Utilization

Utilization rate for employee housing is defined as the percent of individual units that are occupied by people for primary residence either on a permanent or seasonal basis in compliance with the spirit of 5 U.S.C. 5911, OMB Circulars A-11 and A-45, 400 DM 3, Quarters Management, and 400 DM, Departmental Quarters Handbook.

The formula for determining the utilization rate and value for the three DOI employee housing classes is as follows:

Individual Units (Single Family Residences) Type: 3530	
Method:	Is the Unit Occupied
Calculation:	Any occupancy = Utilized (2)
	No occupancy = Under Utilized (3)

Multiple Occupancy Units (Apartment buildings, Dormitories, Bunkhouses, etc.) Type: 3530/ 3531	
Method:	Is any portion, i.e., room or individual apartment, occupied
Calculation:	Any occupancy = Utilized (2)
	No occupancy = Under Utilized (3)

Seasonal Housing Type: 3530/3531	
Method:	Measure Seasonal Units during peak season (establish floating month for count)
Calculation:	Any occupancy = Utilized (2)
	No occupancy = Under Utilized (3)

Laboratory Utilization

To calculate laboratory usage, the *Interim User Guidance* recommends the following formula of ratio of active units to current design capacity.

Occupancy ÷ Design Capacity x 100 = Utilization Rate (percent)

The FRPC gives agencies the discretion to use their best judgment for determining utilization of laboratories when the data is not available to calculate utilization in accordance with the definition stated above. The formula for calculating utilization for laboratory space, noted above, can be used, where the

use of the formula ratio of active units to current design capacity is not practicable.

Some DOI buildings may have a significant amount of both office and laboratory space, combining two predominate use categories. For example, a 10,000 SF building may have 60 per cent of its space dedicated to office space and 40 per cent for laboratory space. While it's predominate use is as an office building, determining the building's actual utilization will not be necessarily accurate unless its laboratory utilization is also considered.

For the above noted example, 4,500 SF of the 6,000 SF for office space is utilized translates into a utilization rate of 75 percent and a utilization value of 2 (utilized). 2,000 SF of 4,000 SF of the laboratory space in the same building translates into a utilization rate of 50 percent with a utilization value of 3 (under utilized). Aggregating the utilization of space for both uses is 6,500 SF out of 10,000 SF. The resulting aggregate utilization rate for the building is 65 per cent with utilization value of 3 (under utilized).

For determining the utilization rate and value for a multi-use building, the following approach can be used:

- Determine the square footage of the uses (e.g., office, laboratory) of the building.
- Determine how much square footage is utilized for each type of use.
- Add up the total utilized square footage.
- Divide by the net usable square footage of the building. This gives you the utilization rate.
- Identify the buildings predominant use. Using the table on Page 2 for the predominant use of the asset determines the utilization value based on the aggregate utilization of the building.